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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,787	03/05/2002	Koji Kasuga	8032-1002	8831
466	7590	10/27/2003		
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER DUONG, THOI V	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,787

Applicant(s)

KASUGA, KOJI

Examiner

Thoi V Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,17-22,28 and 29 is/are rejected.
- 7) ☒ Claim(s) 11-16 and 23-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This office action is in response to the Amendment, Paper No. 8, filed August 26, 2002.

Accordingly, claims 1-9 were cancelled, and new claims 10-29 were added. Currently, claims 10-29 are pending in this application.

Response to Arguments

2. Applicant's arguments with respect to new claims 10-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10, 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakuma et al. (USPN 5,504,605) in view of Komano (USPN 5,375,005).

As shown in Figs. 1 and 2, Sakuma et al. discloses a liquid crystal display, comprising:

a rear case 2;

a lamp unit 36 mounted on the upper surface of the rear case;

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a light guide plate 37 mounted over the upper surface of the rear case, the lamp unit operatively positioned adjacent the light guide plate and being independent from the light guide plate;

a first rectangular notch section 53, 54 extending inwardly on the rear case 2 along a length of the lamp unit 36;

a second rectangular notch section (in the front of Fig. 2) extending inwardly on the rear case along a length of the rear case opposite the first rectangular notch section; and

a liquid crystal display panel 62 mounted proximate the light guide plate 2, wherein an entire lower surface of the light guide plate rests on the upper surface of the rear case.

Samuka et al. discloses a liquid crystal display that is basically the same as that recited in claims 10, 17, 18 and 22, except for two lamp unit holders and plural light guide plate retaining elements extending from an upper surface of the rear case. As shown in Figs. 1-4, Komano discloses a liquid crystal device comprising holding members 31a through 31d, for effectively supporting a liquid crystal panel 11, a light guiding plate 21 and a lamp unit 22 as well as for assuring easy assembly (col.1, lines 61-66). These holding members are disposed on the four corner portions of a rear case 13 and comprise a positioning unit 33 for the liquid crystal panel, a positioning unit 34 for the light guide plate, and a positioning unit 35 for the lamp unit (col. 4, lines 8-21). In addition, the rear case also includes lugs 80 as a bias element for urging the light guide plate into close relationship with said lamp unit (col. 5, lines 52-64)

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Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the liquid crystal display of Ono et al. with the teaching of Komano by forming the locating elements to locate the light guide plate so as to improve structure of positioning and assure easy assembly for the display.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakuma et al. (USPN 5,504,605) in view of Komano (USPN 5,375,005) as applied to claims 10, 17, 18 and 22 above and further in view of Kubo et al. (USPN 6,456,279 B1).

Sakuma et al. as modified in view of Komano discloses a liquid crystal display that is basically the same as that recited in claim 21 except for the liquid crystal panel mounted intermediate the rear case and the light guide plate. As shown in Figs. 7 and 20a, Kubo et al. discloses a reflection type liquid crystal display comprising a lamp 3A, a light guide plate 40B, and a liquid crystal display panel 1, wherein the liquid crystal panel is mounted intermediate the light guide plate 40B and a rear case 19 so as to improve brightness of the display with a front illumination system (col. 3, lines 27-33). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the liquid crystal display of Sakuma et al. with the teaching of Kubo et al. by employing a front illumination system to improve brightness of the display.

6. Claims 19, 20, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakuma et al. (USPN 5,504,605) in view of Komano (USPN

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5,375,005) as applied to claims 10, 17, 18 and 22 above and further in view of Ibaraki (USPN 5,886,758) and Furuhashi et al. (USPN 6,203,158 B1).

Samuka et al. as modified in view of Komano discloses a liquid crystal display that is basically the same as that recited in claims 19, 20, 28 and 29 except for the lamp unit holders which are bridge retainers with a top plate interconnecting two parallel retainer elements, wherein an electric socket is provided on an inner wall of the top plate of one of the bridge retainers; and the rear case comprising an elongate opening providing an access for mounting the lamp unit, from a rear side of the rear case, into the lamp unit holders.

As shown in Fig. 3, Ibaraki discloses a lamp unit holder comprising bridge retainers 10 with a top plate (at bottom of Fig. 3) interconnecting two parallel retainer elements 11 (electrical sockets) for firmly holding the lamp of a liquid crystal display so as to avoid breakage of the lamp due to vibration or shock (col. 1, line 65 through col. 2, line 2). Meanwhile, as shown in Figs. 2(B) and 3, Furuhashi et al. discloses a projection display comprising a rear case 4 having a cover 27 being fixed with a screw to the bottom of the rear case. Furuhashi et al. teaches that a lamp can be replaced by loosening the screw and removing the cover 27 to expose the light source lamp unit (col. 7, lines 41-45). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the liquid crystal of Samuka et al. with the teaching of Ibaraki and Furuhashi et al. by employing lamp unit holders as bridge retainers having an electric socket and forming a rear case comprising an elongate opening providing an access for mounting the lamp unit, from a rear side of the

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rear case, into the lamp unit holders so as to avoid breakage of the lamp due to vibration or shock and facilitate the lamp installation.

Allowable Subject Matter

7. Claims 11-16 and 23-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

Re claims 11 and 23, none of the prior art of record discloses, in combination with other limitations as claimed, a liquid crystal display comprising a lid covering the second notch section from a bottom surface of the rear case, and, wherein,

the liquid crystal display panel includes a substrate, the second notch section is formed as a storage portion receiving the substrate, and

the substrate is located intermediate the lid and the liquid crystal display panel within the storage portion of the second notch section.

The most relevant reference, USPN 6,411,359 B1 of Kobayashi et al., fails to disclose or suggest a lid covering the second notch section from a bottom surface of the rear case and the substrate being located intermediate the lid and the liquid crystal display panel within the storage portion of the second notch section. The Kobayashi et al.'s reference only discloses a lid PCB covering the top of the second notch and the substrate FPC2 being located within the storage

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portion of the second notch section below the lid a second notch as shown in Fig.

32.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is

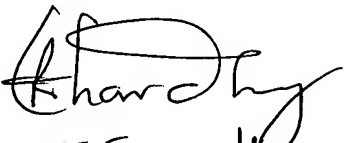
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(703) 308-3171. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (703) 305-3492.

Thoi Duong

10/19/2003


T. Chowdhury
Primary Examiner